

Comparisons of Job Characteristics

Focus Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation: Boilermakers (47-2011)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

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| | |
|----|--|
| << | Focus occupation element is much lower |
| < | Focus occupation element is lower |
| 0 | Focus occupation element is at a similar level |
| > | Focus occupation element is at a higher level |
| >> | Focus occupation element is at a much higher level |

Knowledge

Similarity of Focus Occupation to Associated Occupation: 92

Focus Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation: Boilermakers (47-2011)

| Associated Occupation's Key Knowledge Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation |
|--|---------------------------------|--------------------------------|---------------------------|---|
| Mechanical | 6.8 | 17.5 | 20.1 | > Current knowledge level is likely sufficient |
| Building and Construction | 4.0 | 13.8 | 12.5 | < Expanded education and/or training may be required |
| Engineering and Technology | 5.7 | 12.6 | 11.1 | < Expanded education and/or training may be required |
| Design | 5.2 | 11.9 | 10.3 | < Expanded education and/or training may be required |
| Physics | 4.3 | 7.6 | 11.4 | >> Current knowledge level is likely more than sufficient |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 66

Focus Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation: Boilermakers (47-2011)

| Associated Occupation's Key Skills Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation |
|---|---------------------------------|--------------------------------|---------------------------|---|
| Operation and Control | 5.4 | 11.4 | 10.9 | 0 Current skill level may be sufficient |
| Operation Monitoring | 6.6 | 11.1 | 11.4 | 0 Current skill level may be sufficient |
| Quality Control Analysis | 5.9 | 10.6 | 11.2 | 0 Current skill level may be sufficient |
| Troubleshooting | 4.5 | 9.6 | 13.3 | >> Skill level is likely more than sufficient |
| Equipment Maintenance | 3.5 | 9.3 | 12.3 | >> Skill level is likely more than sufficient |
| Repairing | 3.4 | 9.2 | 13.5 | >> Skill level is likely more than sufficient |
| Equipment Selection | 3.3 | 8.0 | 9.4 | > Skill level is likely sufficient |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

| Abilities | | Similarity of Focus Occupation to Associated Occupation: 87 | | | |
|--|---------------------------------|---|---------------------------|--------------------------------|--|
| Focus Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021) Associated Occupation: Boilermakers (47-2011) | | | | | |
| Associated Occupation's Key Abilities Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation | |
| Arm-Hand Steadiness | 6.8 | 11.8 | 10.8 | 0 | Current ability level may be sufficient |
| Control Precision | 6.6 | 11.5 | 9.8 | < | Some improvement in abilities may be required |
| Manual Dexterity | 6.5 | 10.4 | 9.0 | < | Some improvement in abilities may be required |
| Multilimb Coordination | 6.0 | 10.3 | 9.5 | 0 | Current ability level may be sufficient |
| Reaction Time | 4.8 | 8.9 | 8.2 | 0 | Current ability level may be sufficient |
| Extent Flexibility | 4.8 | 8.7 | 11.8 | >> | Current ability level is likely more than sufficient |
| Response Orientation | 4.0 | 7.7 | 5.4 | << | Extensive improvement in abilities may be required |
| Gross Body Equilibrium | 3.2 | 6.6 | 7.1 | 0 | Current ability level may be sufficient |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

| Activities that Both Occupations Have in Common | | Similarity of Focus Occupation to Associated Occupation: 91 |
|--|-------------------------|---|
| Focus Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021) Associated Occupation: Boilermakers (47-2011) | | |
| Work Activities | Exclusivity of Activity | |
| Adhere to safety procedures | 12 | |
| Align or adjust clearances of mechanical components or parts | 72 | |
| Apply cleaning solvents | 41 | |
| Assemble and install pipe sections, fittings, or plumbing fixtures | 71 | |
| Cut, bend, or thread pipe for gas, air, hydraulic, or water lines | 84 | |
| Determine installation, service, or repair needed | 58 | |
| Determine project methods and procedures | 76 | |
| Fabricate sheet metal parts or items | 80 | |
| Fabricate, assemble, or disassemble manufactured products by hand | 11 | |
| Identify properties of metals for repair or fabrication activities | 71 | |
| Inspect machinery or equipment to determine adjustments or repairs needed | 42 | |
| Install or replace meters, regulators, or related measuring or control devices | 66 | |
| Lay out machining, welding or precision assembly projects | 63 | |
| Maintain or repair industrial or related equipment/machinery | 39 | |

| | |
|---|----|
| Maintain welding machines or equipment | 70 |
| Measure and mark reference points or cutting lines on workpieces | 66 |
| Move or fit heavy objects | 8 |
| Perform safety inspections in industrial, manufacturing or repair setting | 32 |
| Position, align, or level machines, equipment, or structures | 74 |
| Pressure test piping system or equipment for leaks | 89 |
| Read blueprints | 10 |
| Read specifications | 23 |
| Read technical drawings | 7 |
| Repair or adjust measuring or control devices | 71 |
| Repair or replace gas, steam, sewer, or water piping or fixtures | 82 |
| Repair or replace malfunctioning or worn mechanical components | 62 |
| Test mechanical products or equipment | 56 |
| Understand technical operating, service or repair manuals | 6 |
| Use acetylene welding/cutting torch | 54 |
| Use arc welding equipment | 62 |
| Use basic plumbing techniques | 72 |
| Use combination welding procedures | 68 |
| Use hand or power tools | 2 |
| Use pipe fitting equipment | 80 |
| Use precision measuring devices in mechanical repair work | 61 |
| Use pressure gauges | 76 |
| Weld together metal parts, components, or structures | 54 |

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 82

Focus Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)
Associated Occupation: Boilermakers (47-2011)

| Tools and Technologies | Exclusivity |
|---|-------------|
| Aerial lifts | 13 |
| Business function specific software | 1 |
| Compressors | 9 |
| Computers | 1 |
| Content authoring and editing software | 1 |
| Cutting and crimping and punching tools | 3 |
| Cutting tools | 18 |
| Dispensing tools | 6 |
| Drafting supplies | 9 |
| Face and head protection | 7 |
| Fall protection | 16 |
| Forming tools | 2 |
| Gas analyzers and monitors | 10 |

| | |
|--|----|
| Holding and clamping tools | 3 |
| Indicating and recording instruments | 2 |
| Industry specific software | 1 |
| Ladders and scaffolding | 6 |
| Length and thickness and distance measuring instruments | 2 |
| Lifting equipment and accessories | 3 |
| Light and wave generating and measuring equipment | 4 |
| Machine tools | 7 |
| Marking tools | 11 |
| Measuring and layout tools | 3 |
| Metal bending and forming machinery | 17 |
| Non destructive examination equipment | 13 |
| Personal communication devices | 2 |
| Power tools | 2 |
| Pressure measuring and control instruments | 10 |
| Prying and bending tools | 10 |
| Respiratory protection | 6 |
| Rough and finishing tools | 5 |
| Safety apparel | 4 |
| Sampling equipment | 12 |
| Sealing tools | 21 |
| Soldering and brazing and welding machinery and supplies | 6 |
| Special tooling fixtures | 16 |
| Viewing and observing instruments and accessories | 4 |
| Vision protection and accessories | 3 |
| Wrenches and drivers | 2 |

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.